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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/238,678 | 01/26/1999 | STEVEN R. CLARKE | CRS/227 | 6023 |
| 7 | 7590 08/28/2002 | | | |
| GREGORY J LUNN | | | EXAMINER | |
| WOOD HERRON & EVANS 2700 CAREW TOWER | | | SINGH, ARTI R | |
| 441 VINE STR | REET | | | |
| CINCINNATI, OH 452022917 | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | 3 |
| | | DATE MAILED: 08/28/2002 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | A9-3 |
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| | Application No. | Applicant(s) |
| | 09/238,678 | CLARKE, STEVEN R. |
| Office Action Summary | Examiner | Art Unit |
| | Ms. Arti R. Singh | 1771 |
| The MAILING DATE of this communication ap | 1 | with the correspondence address |
| Period for Reply | | MONITURO) EDOM |
| A SHORTENED STATUTORY PERIOD FOR REPI THE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a re - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statu - Any reply received by the Office later than three months after the maili earned patent term adjustment. See 37 CFR 1.704(b). Status | . 1.136(a). In no event, however, may eply within the statutory minimum of d will apply and will expire SIX (6) Notes, cause the application to become | thirty (30) days will be considered timely. MONTHS from the mailing date of this communication. E ABANDONED (35 U.S.C. § 133). |
| The second section (a) filed on 26 | S January 1999 . | |
| / | This action is non-final. | |
| 3) Since this application is in condition for allow | wance except for formal r | natters, prosecution as to the merits is |
| closed in accordance with the practice under Disposition of Claims | er <i>Ex parte Quayle</i> , 1935 | C.D. 11, 453 O.G. 213. |
| 4) Claim(s) 1-11 is/are pending in the application | on. | |
| 4a) Of the above claim(s) is/are withdr | rawn from consideration. | |
| 5) Claim(s) is/are allowed. | | |
| 6)⊠ Claim(s) <u>1-11</u> is/are rejected. | | |
| 7) Claim(s) is/are objected to. | | |
| 8) Claim(s) are subject to restriction and | or election requirement. | |
| Application Papers | | |
| 9) The specification is objected to by the Examir | | |
| 10)⊠ The drawing(s) filed on 26 January 1999 is/ar | | |
| Applicant may not request that any objection to | | |
| 11) The proposed drawing correction filed on | | disapproved by the Examiner. |
| If approved, corrected drawings are required in | | |
| 12) The oath or declaration is objected to by the E | Examiner. | |
| Priority under 35 U.S.C. §§ 119 and 120 | | 0.0440(1)(1) (5) |
| 13) Acknowledgment is made of a claim for forei | ign priority under 35 U.S. | C. § 119(a)-(d) or (f). |
| a) ☐ All b) ☐ Some * c) ☐ None of: | | |
| 1. Certified copies of the priority docume | | |
| 2. Certified copies of the priority docume | | |
| 3. Copies of the certified copies of the prapplication from the International Example 1. * See the attached detailed Office action for a limit of the praper in the praper i | Bureau (PCT Rule 17.2(a | 1)). |
| 14) Acknowledgment is made of a claim for dome | | |
| a) The translation of the foreign language p | provisional application ha | s been received. |
| Attachment(s) | | |
| Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449) Paper No(s | 5) Notice | iew Summary (PTO-413) Paper No(s) e of Informal Patent Application (PTO-152) |

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Specification

1. The uses of Trademarks/Tradenames have been noted in this application (p. 5, ln 20, (TRANS-KOTE), p. 6, ln 7 (TREVIRA) etc.). They should be capitalized wherever they appear and be accompanied by the generic terminology. Although the use of Trademarks/Tradenames is permissible in patent applications, the proprietary nature of the marks/names should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as a trademark or tradename. To describe physical or other properties of material by mere use of trademark is objectionable since it has tendency to make trademark descriptive of product rather than leaving trademark to serve its traditional purpose, which is to identify product's source of origin.

Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 3. Claims 2-4, 7 & 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 4. Claims 10 and 11 are rejected on the basis of lacking antecedent basis. Claim 10 recites the limitation "said bituminous adhesive layer" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim. Claim 11 is rejected as being dependent from claim 10.
- 5. With regard to Claims 2-4, 7 and 9: Claim 2 recites, "The roof membrane claimed in claim 1 further comprising a first adhesive layer bonding said membrane to said protective layer" (claims 3 & 4 are rejected as being dependent from claim 2), Claim 7 recites, "The roof membrane claimed in claim 1 wherein said membrane is EPDM" and Claim 9 recites, "The

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roof membrane claimed in claim 1 wherein said membrane is a thermoplastic olefin", when referring to "membrane" it is unclear to the Examiner whether Applicant is referring to the entire roofing membrane composite of claim 1 or just the outer layer membrane which is a part of the composite in claim 1? For the purposes of examination the Examiner is construing the membrane to mean the outer layer membrane of the composite as shown in the Figure 1, reference #12 (i.e. lines 3 & 4 of claim 1). If the Examiner is incorrect in her analysis please clarify as to what is meant by the term "membrane" in these claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 7. Claims 1, 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 5,620,554 to Venable.
- 8. Venable discloses an apparatus for making a composite roofing product that includes a synthetic vulcanized rubber sheet (EPDM- column 2, line 19) with a fabric matting adhered thereto via a polymeric film. The Examiner is equating the polymeric film layer to be the same as Applicant's protective layer, as it too is a polymeric film.

The apparatus includes a cleaning vat for scrubbing and cleaning talc or other non-stick coatings from a vulcanized rubber sheet and a heater for heating the cleaned rubber sheet. After passing through the heater, a polymeric polyethylene film (column 2, lines 39-40) is sandwiched between the rubber sheet and polyester fleece matting (column 2, line 40) with the heat from the rubber sheet substantially

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melting the polymeric film. The rubber sheet, the polymeric film and the fleece matting are then compressed together by compression rollers, causing the melted polymeric film to bond the fleece matting to the rubber sheet (column 1, lines 15-28). It should be noted that fleece and felts are types of nonwovens. Patentee, in column 1, lines 56-61 states that this product has proven to be very durable, crack and puncture resistant. In addition, the fleece-like matting provides an ideal bonding surface for roofing adhesives such as asphalt and other adhesives. It should be noted that by definition asphalt and bitumen are used interchangeably in the roofing industry. Further support for this can be had from Webster's dictionary definition (provided) showing that they are synonymous, and as also seen in the reference supplied by Applicant U.S.P. 4,248,926 at column 1, lines 10-12. Thus, Venable teaches a roofing composite comprising an outer EPDM layer bonded to a polymeric film, which is in turn bonded to a polyester fleece. The reference further alludes that compatible roofing adhesives may be used with the composite, and as asphaltic (bituminous) adhesives are the most commonly used in the roofing industry, it reads on the preamble of Claim 1. Thus, the cited Venable patent anticipates Applicant's Claims 1, 7 and 9.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

⁽a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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10. Claims 5, 6 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (USP 5,620,554) as applied to claims 1, & 7-9 above, and further in view of Pushaw (USP 5,955,188).

11. Venable discloses what is set forth above, specifically that the protective layer (a polyethylene film which substantially melts and adheres the rubber and fleece layers together. Venable fails to teach that his protective layer can be made form any other polymer. Applicant's claims 5 & 6 limit the protective layer to be a polar polymeric layer and to be selected from the group consisting of polyester, polyurethane and polyether.

Pushaw shows that using polyurethane, polyesters or polyethers are well known adhesives, and are equivalents in the art to that of polyethylene adhesives (column 8, lines 37-40). Therefore, because these adhesives were art recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to have substituted one adhesive for the other.

Allowable Subject Matter

12. Claims 2-4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closet prior art found is that of Venable as set forth above, however Venable teaches away from using plural layers between the rubber and fleece layers. In fact, they clearly teach only one intermediate layer, that being either a film or an adhesive, not both.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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• French Reference 0017150 from the abstract discloses an roofing composite comprising a barrier film, insulation material, a fibrous mat impermeable layers and bitumen. No adhesive layers are seen, nor does the abstract state the chemistry of all the layers. Furthermore, the abstract does not disclose what reference # 4 entails. Since the Examiner is not fluent in French a translation has been ordered to determine if these layers may read on Applicant's claims and if pertinent shall be provided in the next office action.

- USP 6,110,846 & 6,360,511 to Brzozowski et al. both have disclosed teachings of built up roofing laminates. Due to the date the references (and the priority lineage-USP 5,696,013 that they claim) do not fall out as prior art. However the reference do disclose the use of the synthetic polyester fibers (felt) a bituminous adhesive and a protective layer.
- USP 6,305,143 to Streets et al. relates to composite roofing material comprising EPDM
 or PVC backed with a fleece or a felt or other polymeric membranes. However the
 date does not meet the prior art requirement.
- 14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti R. Singh whose telephone number is 703-305-0291. The examiner can normally be reached on M-F 7:00am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-873-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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Ms. Arti R. Singh Patent Examiner Art Unit 1771

ars August 27, 2002